

ambiguity as to whether or not the last step (i.e., using the substitute hop channel...during the present phase) is dependent on the selected hop channel being a forbidden hop channel. Accordingly, Applicant prefers not to remove the colon.

In paragraph 5, the Office Action rejects claims 1-7 and 16-22 under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 5,323,447 to Gillis et al. ("Gillis"). Applicant respectfully traverses this rejection.

The invention relates to techniques for dynamically skipping certain hops of a hop sequence. The invention avoids certain "forbidden" hops in the hop sequence without having to change the hop sequence generator. This is achieved by performing a transformation operation in which a "forbidden" hop serves as the basis for determining an "allowed" hop. If the hop selection mechanism visits a "forbidden" hop, an offset may be temporarily added to the phase such that an allowed hop is instead selected. The offset is only applied when a forbidden hop is selected. When an allowed hop is selected, no adjustment is made. The offset is supplied by a time-varying parameter such as a clock value, a randomly selected value, or a pseudo-randomly selected value.

Accordingly, independent claim 1 defines a method for selecting a hop channel for use in a channel hopping communication system. The method includes, *inter alia*, the steps of selecting a hop channel from the sequence as a function of a present phase; and if the selected hop channel is an allowable hop channel, then using the selected hop channel for communication during the present phase. However, if the selected hop channel is a forbidden hop channel, then a time-varying parameter is used to select a substitute hop channel from the set of allowable hop and channels, and the substitute hope channel is used for communication during the present phase.

Gillis discloses an apparatus and method for modifying a frequency hopping sequence of a cordless telephone operating in a frequency hopping system. According to Gillis, a pseudo random data list having a first group of 52 values is generated which corresponds to a first set of 52 random channels, and a second set of, for example, 10 data values is generated which corresponds a second set of 10 random channels. Furthermore, if during the frequency hopping cycle interference is detected on any one or more of the channels in the first group, a channel change process is initiated whereby one or more

channels are selected from the second group of channels as a substitute for the channel or channels on which the interference was detected (See column 4, lines 21-33 and column 9, lines 20-59 of Gillis).

It is well known that in order to support a rejection under 35 U.S.C. §102, the applied reference must teach each and every claimed element. In the present case, independent claim 1 is not anticipated by Gillis for at least the reason that Gillis fails to disclose the steps of using a time-varying parameter to select a substitute hop channel from the set of allowable hop channels and using the substitute channel for communication during the present phase if the selected hop channel is a forbidden hop channel.

The Office Action asserts Gillis discloses all of the claimed elements inasmuch as Gillis discloses generating two groups of channels, wherein if interference is detected on a channel of the first group, that channel can be replaced with a channel from the second. This assertion is unfounded for the following reasons.

Although Gillis appears to disclose a channel change routine wherein channels within the frequency hopping cycle which are determined to contain interfering signals are exchanged with channels from a second group of channels, Gillis fails to disclose the steps of using a *time-varying parameter* to select a substitute hop channel from the set of allowable hop channels and using the substitute channel for communication during the present phase if the selected hop channel is a forbidden hop channel.

Furthermore, Gillis discloses generating two separate, disjunct sets or groups of channels, the normal group and the substitute group. Frequencies determined to be bad in the normal group are replaced with frequencies selected from the substitute. In contrast, according to the invention, only one set of frequencies is provided and the substitute frequencies are derived from the good frequencies in the set.

Independent claim 16 defines an apparatus that includes logic configured to provide the functionality of the steps of claim 1. Therefore, claim 16 is patentably distinguishable over Gillis for at least those reasons presented above with respect to claim 1.

Claims 2-7 and 17-22 variously depend from independent claims 1 and 16. Therefore, claims 2-7 and 17-22 are patentably distinguishable over Gillis for at least those

reasons present above with respect to claims 1 and 16. Accordingly, Applicant respectfully request reconsideration and withdrawal of the rejection of claims 1-7 and 16-22.

The application is in condition for allowance. Notice of same is earnestly solicited. Should the Examiner have any questions regarding this application, the Examiner is invited to phone the undersigned at the number provided below.

Respectfully submitted,

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